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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
AUGHENBAUGH, WALTER	
ART UNIT	**PAPER NUMBER**
1772	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/724,596	PYNENBURG, RORY ALBERT JAMES	
	Examiner	Art Unit	
	Walter B. Aughenbaugh	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *42,49 and 54-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *42,49 and 54-69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Applicant's Amendments

1. The amendments made in claims 42 and 49 in the Amendment filed August 23, 2005 (Amdt. A) have been received and considered by Examiner.

2. The cancellation of claims 43-48 and 50-53 in Amdt. A is acknowledged by Examiner.

3. New claims 54-69 presented in Amdt. A have been received and considered by Examiner.

WITHDRAWN OBJECTIONS

4. The objection to the abstract made of record in paragraph 1 of the previous Office Action mailed March 24, 2005 has been withdrawn due to Applicant's submission of the abstract on a separate page in Amdt. A.

5. The objection to claims 48 and 53 made of record in paragraph 3 of the previous Office Action mailed March 24, 2005 has been withdrawn due to Applicant's cancellation of claims 48 and 53 in Amdt. A.

6. The objection to claim 49 made of record in paragraph 3 of the previous Office Action mailed March 24, 2005 has been withdrawn due to Applicant's amendment in claim 49 in Amdt. A.

REPEATED OBJECTIONS

7. The objection to the specification made of record in paragraph 2 of the previous Office Action mailed March 24, 2005 has been repeated since the recitation "of between about 1 μm and about 10 μm thickness" in claim 42 is not supported in the specification. The statement "generally between 1 to 10μm in thickness" at page 12, lines 21-22 of the specification does not

support the recitation "of between about 1 μm and about 10 μm thickness". The recitation "of between about 1 μm and about 10 μm thickness" includes the endpoints 1μm and 10μm, whereas the statement in the specification does not include these endpoints. Furthermore, the endpoints in the statement in the specification are set whereas the endpoints in the recitation in claim 42 are not similarly defined. The remainder of the reasons for objection are withdrawn due to the cancellation of claims 49 and 53 in Amdt. A.

WITHDRAWN REJECTIONS

8. The 35 U.S.C. 112, first paragraph rejection of claims 49 and 53 made of record in paragraph 5 of the previous Office Action mailed March 24, 2005 has been withdrawn due to Applicant's cancellation of claim 53 and amendment of claim 49 in Amdt. A.

9. The 35 U.S.C. 112, second paragraph rejection of claims 42 and 49 made of record in paragraph 6 of the previous Office Action mailed March 24, 2005 has been withdrawn due to Applicant's amendments in claims 42 and 49 in Amdt. A.

10. The 35 U.S.C. 103 rejection of claim 49 made of record in paragraph 11 of the previous Office Action mailed March 24, 2005 has been withdrawn due to Applicant's amendment in claim 49 in Amdt. A.

REPEATED REJECTIONS

Claim Rejections - 35 USC § 112

11. The 35 U.S.C. 112, first paragraph rejection of claim 42 made of record in paragraph 5 of the previous Office Action mailed March 24, 2005 has been repeated since the recitation "of between about 1 μm and about 10 μm thickness" in claim 42 is not supported in the specification. The statement "generally between 1 to 10μm in thickness" at page 12, lines 21-22

of the specification does not support the recitation "of between about 1 μm and about 10 μm thickness". The recitation "of between about 1 μm and about 10 μm thickness" includes the endpoints 1μm and 10μm, whereas the statement in the specification does not include these endpoints. Furthermore, the endpoints in the statement in the specification are set whereas the endpoints in the recitation in claim 42 are not similarly defined.

Claim Rejections - 35 USC § 102

12. The 35 U.S.C. 102 rejection of claim 42 made of record in paragraph 8 of the previous Office Action mailed March 24, 2005 has been repeated for the reasons previously made of record and for the following reasons that address the amendments made in claim 42 in Amdt. A: Louie et al. teach that the sealant layer (polymer sealing strip, item 30) is disposed intermediate the inner barrier layer (item 25 or 23) and an adjacent one of the terminals (see Fig. 1 and 3, for example, item 30 is between item 25, an inner barrier layer, and item 36, a terminal which is adjacent the sealant layer, item 30). Louie et al. teach that the tie layers, items 14 and 26, have a thickness of about 10 microns (col. 2, lines 50-58). Louie et al. teach that one tie layer, item 26, is disposed between the sealant layer (item 30) and the inner barrier layer (layer 25 at the top of Fig. 1) and that one tie layer, item 14, is disposed between the inner barrier layer (layer 25 at the top of Fig. 1) and the outer barrier layer (item 25 at the bottom of Fig. 1).

NEW OBJECTIONS

Specification

13. The amendment filed August 23, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not

supported by the original disclosure is as follows: the subject matter of new claims 54, 57, 60, 62, 65 and 68 is not supported in the specification as originally filed.

Applicant is required to cancel the new matter in the reply to this Office Action.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claims 54, 57, 60, 62, 65 and 68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter of new claims 54, 57, 60, 62, 65 and 68 is not supported in the specification as originally filed.

Claim Rejections - 35 USC § 102

16. Claims 49, 59, 61 and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Louie et al.

In regard to claim 49, Louie et al. teach a laminate package for an energy storage device (col. 1, lines 5-10 and Fig. 3 and 4) having two terminals (items 34 and 36, col. 3, lines 21-24 and 54-67 and Fig. 1, 3 and 4). Louie et al. teach that the laminate package includes an inner barrier layer (corresponding to layer 25 at the top of Fig. 1 and layer 23 at the bottom of Fig. 1 which are coextruded with a polymer that serves as a vapor barrier, see col. 2, lines 31-41) for

defining a cavity to contain the energy storage device (Fig. 3). Louie et al. teach a sealant layer (corresponding to polymer sealing strip, item 30) disposed between, and sealingly engaged with, the inner barrier layer and an adjacent one of the terminals (see Fig. 3). Louie et al. teach an outer barrier layer (corresponding to either layer 23 or 27 at the top of Fig. 1 and either layer 25 or 27 at the bottom of Fig. 1- layers 23 and 25 are coextruded with a polymer that serves as a vapor barrier and layer 27 is polyvinylidene chloride, which is a vapor barrier, see col. 2, lines 31-44) that is bonded to the inner barrier layer (Fig. 1). Louie et al. teach that the package has a metal layer (metal foils 14 and 26, col. 2, lines 50-55). Louie et al. teach that the package sealingly contains the energy storage device and the terminals are accessible from outside the package (Fig. 3). Louie et al. teach that the packaging films, items 28 and 12, are sealed together via the sealing strip tabs, item 30, with a heat press (col. 4, lines 26-36), as opposed to being directly heat sealed per convention (col. 4, lines 21-24). The phrase "for allowing external electrical connection to the energy storage device" is an intended use phrase which has not been given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987).

In regard to claim 59, Louie et al. teach that the outer barrier layer (corresponding to either layer 23 or 27 at the top of Fig. 1 and either layer 25 or 27 at the bottom of Fig. 1) includes a plastics layer bonded to the outside of the metal layer (one of metal foils 14 and 26, col. 2, lines 50-55) because the outer barrier layer is a plastics layer (col. 2, lines 31-44 and Fig. 1).

In regard to claim 61, Louie et al. teach that the plastics layer includes polyvinylidene chloride or polypropylene (col. 2, lines 31-44).

In regard to claim 67, Louie et al. teach that the outer barrier layer (corresponding to either layer 23 or 27 at the top of Fig. 1 and either layer 25 or 27 at the bottom of Fig. 1) includes a plastics layer bonded to the inside of the metal layer (one of metal foils 14 and 26, col. 2, lines 50-55; e.g. layer 23 at the top of Fig. 1 is bonded to the inside of metal layer 14) because the outer barrier layer is a plastics layer (col. 2, lines 31-44 and Fig. 1: the recitation "bonded to" does not require contact- "A bonded to B" does not require that A is in contact with B).

Claim Rejections - 35 USC § 103

17. Claims 60, 68 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louie et al.

Louie et al. teach the package as discussed in paragraph 8 of the previous Office Action mailed March 24, 2005 and above. Louie et al. fail to teach the claimed thickness range of the plastics layer. Louie et al., however, teach that the packaging material must be flexible (col. 1, lines 35-37 and col. 4, lines 62-65), that the package is reduced in weight over prior art packages (col. 4, lines 49-51) and that one of skilled in the art knows the specific thicknesses required for the desired end result (col. 4, lines 59-62). Therefore, one of ordinary skill in the art would have recognized to have varied the thickness of the plastics layer to achieve the desired package flexibility and package weight depending on the desired end result as taught by Louie et al.

In regard to claim 69, Louie et al. teach that the plastics layer includes polyvinylidene chloride or polypropylene (col. 2, lines 31-44).

18. Claims 54-58 and 62-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louie et al. in view of Sasaki et al.

Louie et al. teach the package as discussed in paragraph 8 of the previous Office Action mailed March 24, 2005 and above.

In regard to claims 54 and 62, Louie et al. fail to teach that the sealant layer has a melting point of between 90 and 120°C. Sasaki et al. disclose a container (item 5) for an energy storage device having two terminals (corresponding to the leads labelled "3") (col. 8, lines 15-25 and col. 17, lines 34-44 and Fig. 8). Sasaki et al. disclose that a heat fusion bonding seal material is coated onto the leads (item 3) and covers the outer periphery of the lower and upper layers of the container, where the heat fusion bonding seal material coating on the leads is labelled "1" in Figure 8, and the periphery covered by the heat fusion bonding seal material is labelled "2" in Figure 8 (col. 17, lines 34-54). Sasaki et al. disclose that the melting point of the heat fusion bonding seal material is from 90 to 120°C (col. 11, lines 26-31). Therefore, one of ordinary skill in the art would have recognized to have used the sealant of Sasaki et al. as the sealant of Louie et al. since a sealant having a melting point of from 90 to 120°C is a well known sealant material for use in containers of energy storage devices having terminals as taught by Sasaki et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the sealant of Sasaki et al. as the sealant of Louie et al. since a sealant having a melting point of from 90 to 120°C is a well known sealant material for use in containers of energy storage devices having terminals as taught by Sasaki et al.

In regard to claims 55, 56, 63 and 64, Louie et al. fail to teach that the sealant layer is a resin containing between about 5% and 10% ethylene acrylic acid or about 6% to 9% ethylene

acrylic acid. Sasaki et al. disclose that the heat fusion bonding seal material is ethylene acrylic acid copolymer, ethylene methacrylic acid copolymer, or combinations of these materials with any polyethylene resin (col. 9, lines 15-21, col. 19, lines 35-38 and 47-62 and col. 19, line 65-col. 20, line 27) and that the resulting resins absorb very small amounts of water. Therefore, one of ordinary skill in the art would have recognized to have used the mixture of ethylene acrylic acid copolymer and any polyethylene resin as the sealant of Louie et al., since a mixture of ethylene acrylic acid copolymer and any polyethylene resin is a suitable sealant material for use in containers of energy storage devices having terminals that absorb acceptable amounts of water as taught by Sasaki et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the mixture of ethylene acrylic acid copolymer and any polyethylene resin as the sealant of Louie et al., since a mixture of ethylene acrylic acid copolymer and any polyethylene resin is a suitable sealant material for use in containers of energy storage devices having terminals that absorb acceptable amounts of water as taught by Sasaki et al.

In regard to the claimed amount of ethylene acrylic acid of "between about 5% and 10%" as claimed in claim 55 and of "about 6% to 9%" as claimed in claims 56 and 64, since Sasaki et al. disclose that the heat fusion bonding seal material is ethylene acrylic acid copolymer, ethylene methacrylic acid copolymer, or combinations of these materials with any polyethylene resin (col. 9, lines 15-21, col. 19, lines 35-38 and 47-62 and col. 19, line 65-col. 20, line 27) and that the resulting resins absorb very small amounts of water, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the relative amounts of ethylene acrylic acid in the mixture of ethylene acrylic acid copolymer and any

polyethylene resin of Sasaki et al. required to achieve the optimal sealing and water absorption properties depending on the particular desired end result.

In regard to claims 57, 58, 65 and 66, Louie et al. fail to explicitly teach that the terminals are formed from aluminum. Sasaki et al., however, disclose a container (item 5) for an energy storage device having two terminals (corresponding to the leads labelled "3") (col. 8, lines 15-25 and col. 17, lines 34-44 and Fig. 8) Sasaki et al. teach that aluminum is a well known material for use as a positive electrode current collector (col. 3, lines 4-6). Therefore, one of ordinary skill in the art would have recognized to have used aluminum as the material of a terminal and of the terminals of Louie et al. since aluminum is a well known material for use as a positive electrode current collector as taught by Sasaki et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used aluminum as the material of a terminal and of the terminals of Louie et al. since aluminum is a well known material for use as a positive electrode current collector as taught by Sasaki et al.

Response to Arguments

19. Applicant's arguments presented on page 7 of Amdt. A regarding the 35 U.S.C. 102 rejection of claim 42 have been fully considered but are not persuasive. Applicant argues that Louie et al. fail to teach that "strip 30 is disposed intermediate the inner barrier layer and *one* of the adjacent terminals", but the claim language does not preclude the location of the sealant layer (strip 30 corresponds to the claimed sealing layer) from being between both terminals.

20. Applicant's arguments presented on pages 7-8 of Amdt. A regarding the 35 U.S.C. 103 rejection of claim 49 are moot due to the withdrawal of this rejection in this Office Action.

Applicant argues that Louie et al. fail to teach that "strip 30 is disposed between the inner barrier layer and *one* of the terminals", but the claim language does not preclude the location of the sealant layer (strip 30 corresponds to the claimed sealing layer) from being between both terminals.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 571-272-1488. While the examiner sets his work schedule under the Increased Flexitime Policy, he can normally be reached on Monday-Friday from 8:45am to 5:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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1772

11/14/05